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EXAMINER

BRAHAN, THOMAS J

ART UNIT

PAPER NUMBER

3652

DATE MAILED: 02/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/612,009

Applicant(s)
NELSON et al

Examiner
Thomas J. Brahan

Art Unit
3652



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE THREE MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Nov 21, 2002
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 9, 10, and 15-23 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 22 is/are allowed.
- 6) ☒ Claim(s) 1-6, 9, 10, 15-21, and 23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of:

- ☐ Certified copies of the priority documents have been received.
- ☐ Certified copies of the priority documents have been received in Application No. _____.
- ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ | 6) <input type="checkbox"/> Other: |

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 9, and 23 are rejected under 35 U.S.C. § 102(a) as being anticipated by Williams et al. Williams et al shows a stocker and its furnace which form a system for processing flat media comprising:

an indexer (the shelves in the stocker) at a first elevation;

a docking station (38) at a second elevation higher than the first elevation (as the lowermost shelf of the indexer can be considered as its elevation);

an elevator (72) for vertically raising a pod containing flat media from the first elevation to the docking station;

a transfer station (the location in the furnace for transferring the flat media from the pods to the pre load station 40, see figure 6) adjacent to the docking station;

a process station (furnace 48 and its wafer support 58); and

a process robot (with end effector 59) movable between the transfer station and the process station for moving flat media between them.

The docking station has a pod door remover, see column 6, lines 46-48, as recited in claim 9.

3. Claims 1-3, 15-18, and 23 are rejected under 35 U.S.C. § 102(b) as being anticipated by Fisher. Fisher shows a system for processing flat media comprising:

an indexer (horizontal transfer sub-assembly 68; see figure 5) at a first elevation;

a docking station (at door assembly 172 and closure 174) at a second elevation higher than the first elevation;

an elevator (ferris wheel sub-assembly 119) for vertically raising a pod containing flat media from the first elevation to the docking station;

a transfer station (the location that has vertical transfer sub-assembly 150 lifting the carriers from the ferris wheel sub-assembly through the docking station door) adjacent to the docking station;

a process station (furnace 12); and

a process robot (horizontal transfer sub-assembly 190 with robot arm 192) movable between the transfer station and the process station for moving flat media between them.

The processing system includes a loader with an elevator sub-assembly (44) with conveyor (70) moving the pod from this elevator to the indexer, as recited in claims 2 and 3. Vertical transfer sub-assembly (150) or elevator (40) are transfer robots, as recited in claim 15. The transfer station has carriers (184) as recited in claim 16. The carriers have slots (186) which are engaged by the transfer robot (elevator 40), as recited in claim 17.

4. Claim 1, 4-6, 15, 16, 18, 19 and 23 are rejected under 35 U.S.C. § 102(b) as being anticipated by Sakamoto et al. Sakamoto et al shows a system for processing flat media comprising:

an indexer (lower conveyor unit 6A) at a first elevation;

a docking station (7; note that no specific structure or specific function is recited in the claims for the docking station) at a second elevation higher than the first elevation;

an elevator (8) for vertically raising a pod containing flat media from the first elevation to the docking station;

a transfer station (4) adjacent to the docking station;

a process station (1); and

a process robot (46) movable between the transfer station and the process station for moving flat media between them.

The rollers on the conveyor support the edges of the pods, as recited in claims 4 and 5. When considering claim 6, the indexer has a first row (6A) a second parallel row (6B), and a shuttle device (9), with the overall elevation of the indexer defined by its lowermost operative level. Moving claw (44) is a transfer robot at transfer station (4), as recited in claim 15. Index table (2) is a carrier for the flat media, as recited in claim 16. The elevator includes an lower engaging plate (20) as recited in claim 19.

5. Claims 1, 2, and 10 are rejected under 35 U.S.C. § 102(a) as being anticipated by Matsushima. Matsushima shows a stocker and its furnace which form a system for processing flat media comprising:

an indexer (84) at a first elevation;

a docking station (at the upper portions of chambers 21, adjacent outlet port 24) at a second elevation higher than the first elevation;

an elevator (35) for vertically raising a pod containing flat media from the first elevation to the docking station;

a transfer station (6) adjacent to the docking station;

a process station (2); and

a process robot (12) movable between the transfer station and the process station for moving flat media between them.

Cassette transfer mechanism (19) is a loader associated with the indexer (84) with an elevator (72) with a lower position which corresponds to the height of the indexer, as it lifts the pods from the indexer, as recited in claim 2. The loader (19) includes a pod rotator (70) as recited in claim 10.

6. Claims 18-21 are rejected under 35 U.S.C. § 102(b) as being anticipated by Davis et al. Davis et al shows a system for processing flat media comprising:

indexer (inventory carrousel brackets 728);

a transfer station above the indexer (note the wafers are raised to and from the indexer);

a docking station (at the upper operating area of docking elevator 800, see figure 15) adjacent the transfer station (note that adjacent is a relative term and all of the areas about indexer 728 are adjacent to each other);

a process station (19);

a process robot (5) moveable between the transfer station and the process station (19), for moving flat media between them; and

at least one docking station elevator (800) for moving a pod vertically from the indexer to the docking station.


The docking station elevator has a sliding engager plate (832), as recited in claims 19 and 20. A deck (central square 726) separates the indexer from the transfer station, as recited in claim 21.

7. Claim 22 is allowable.

8. Applicant argues in the amendment filed November 21, 2002 that Davis et al is not an anticipation as it transports the wafers without using carriers, and thus has no docking station. However, as claim 18 does not recite any function or any structure for the docking station, the area shown in figure 15 which has the wafers lifted from the pods and "docked" onto the indexer, is a docking area as broadly recited in the claim. Applicant also argues that the elevator of Davis lifts the wafers, their carrier. However, as shown in figures 14 and 15, the elevator (800) raises the carriers prior to removing the wafers from the carriers. Applicant also argues that Fisher et al does not raise the pods vertically, as applicant is using a definition of vertical as perpendicular to a horizontal plane. However the claims do not specify linear lifting, as to have any movement with a vertical component considered as vertical lifting. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. An inquiry concerning this action should be directed to Examiner Thomas J. Brahan at telephone number (703) 308-2568 on Mondays through Fridays from 9:30-7:00 EST. The examiner's supervisor, Ms. Eileen Lillis, can be reached at (703) 308-3248. The fax number for Technology Center 3600 is (703) 305-7687.


THOMAS J. BRAHAN
PRIMARY EXAMINER